



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,399	03/02/2004	Marcus T. Clark	14317	2571

7590 03/20/2007
Sally J. Brown
AUTOLIV ASP, INC.
3350 Airport Road
Ogden, UT 84405

EXAMINER

MCCREARY, LEONARD

ART UNIT	PAPER NUMBER
----------	--------------

3616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/791,399

Applicant(s)

CLARK ET AL.

Examiner

Leonard J. McCreary, Jr.

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-34 is/are pending in the application.
- 4a) Of the above claim(s) 31-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The phrase "is described" should be deleted from line 1 of the abstract. Examiner suggests amending line 1 to recite "An airbag inflator diffusion system having a thin profile."

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 6-10, 12-17, and 27-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over XP 007121366 to an anonymous entity, hereinafter referred to as "366," in view of US 5918898 to Wallner et al. '366 discloses a deformable diffuser for an airbag module comprising the following:

- a. An airbag inflator diffusion system, comprising: an airbag inflator having an exhaust gas exit port; a sleeve 10 shaped to receive the inflator securely within the sleeve, the sleeve expanding radially under a force of impinging exhaust gas, the sleeve comprising a structural stop 32 to limit the radial expansion of the sleeve (fig. 4) (claim 1.)
- b. A first longitudinal edge 20 of the sleeve overlaps a second longitudinal edge 22 along a length of the sleeve (claim 4.)
- c. A perforation 70 in the sleeve becomes exposed upon radial expansion of the sleeve (claim 6.)
- d. The perforation is positioned to allow exhaust gas to flow out of the sleeve through the perforation and into an inflatable cushion (page 2, lines 27-29) (claim 7.)
- e. The perforation overlays a portion of the inflator excluding the exit port (claim 8.)
- f. The inflator is an elongate inflator and the sleeve extends a length of the elongate inflator (page 2, lines 10-13) (claims 9, 27.)

- g. The structural stop allows the sleeve to expand radially a predetermined amount (fig. 4) (claims 10, 17.)
- h. The radial expansion of the sleeve forms an exhaust passage between the sleeve and the inflator (page 2, lines 13-18) (claim 12.)
- i. The sleeve comprises a solid section 18 positioned to receive direct impingement of the exhaust gas from the exit port and direct the exhaust gas through the exhaust passage (claim 13.)
- j. A cross-sectional shape of the sleeve is substantially the same as a cross-sectional shape of the inflator (claims 14, 28.)
- k. The sleeve has a mounting stud extending orthogonally therefrom (through 50, 52) (claims 15, 29.)
- l. An airbag inflator diffuser, comprising: a sleeve 10 having a first longitudinal edge 20 that overlaps a second longitudinal edge 22 along a length of the sleeve, the sleeve expanding radially under a force of impinging exhaust gas from an exit port of an inflator when installed within the sleeve; and a structural stop 32 to limit the radial expansion of the sleeve (fig. 4) (claim 16.)

4. '366 does not teach crimped tabs. Wallner discloses an airbag module and teaches:

- m. Crimped tabs 262, 264, 272, 274 being added to a proximal end and a distal end of the sleeve 100c, wherein the crimped tabs are folded inward to hold the inflator 40c within the sleeve during deployment (claims 1, 16).

Art Unit: 3616

5. It would have been obvious to one of ordinary skill in the art at the time the apparatus was made to modify the deformable diffuser of '366 to include crimped tabs at proximal and distal ends of the sleeve as taught by Wallner so as to retain the inflator in the sleeve (col 8, lin 9-47) (figs 6-7).

6. Claim 30 stands rejected under 35 U.S.C. 103(a) as being unpatentable over JP2000211465 to Yu et al. in view of US 5918898 to Wallner et al. Yu discloses an airbag device for a vehicle comprising the following:

n. An airbag inflator diffusion system, comprising: an airbag inflator 14 having an exhaust gas exit port; a sleeve 20 having a first longitudinal edge 22 that overlaps a second longitudinal edge along a length of the sleeve, the sleeve expanding radially to form an exhaust passage under a force of impinging exhaust gas from the exit port of the inflator installed within the sleeve, the sleeve having a perforation 23 adjacent the first longitudinal edge and a tab 28 adjacent the second longitudinal edge, such that the tab is shaped to engage the perforation upon radial expansion of the sleeve to limit expansion (figs. 1, 2) (claim 30.)

7. Yu does not teach crimped tabs. Wallner discloses an airbag module and teaches:

o. Crimped tabs 262, 264, 272, 274 being added to a proximal end and a distal end of the sleeve 100c, wherein the crimped tabs are folded inward to hold the inflator 40c within the sleeve during deployment (claims 1, 16).

8. It would have been obvious to one of ordinary skill in the art at the time the apparatus was made to modify the airbag device of Yu to include crimped tabs at proximal and distal ends of the sleeve as taught by Wallner so as to retain the inflator in the sleeve (col 8, lin 9-47) (figs 6-7).

9. Claims 2-3, 5, and 18-26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over XP 007121366 to an anonymous entity in view of JP2000211465 to Yu et al., and further in view of US 5918898 to Wallner et al. as applied to claims 1, 16, and 30 above. The disclosure of '366 is discussed above and further discloses:

p. The perforation is positioned to allow exhaust gas to flow out of the sleeve through the perforation and into an inflatable cushion (claim 23).

q. The perforation overlays a portion of the inflator excluding the exit port (claim 24).

r. The radial expansion of the sleeve forms an exhaust passage between the sleeve and the inflator (claim 25).

s. The sleeve comprises a solid section positioned to receive direct impingement of the exhaust gas from the exit port and direct the exhaust gas through the exhaust passage (claim 26).

10. '366 does not teach tabs or hooks engaging perforations. Yu discloses an airbag device for a vehicle and teaches:

Art Unit: 3616

t. The structural stop comprises a tab 28 and a perforation 23, such that the tab is shaped to engage the perforation upon radial expansion of the sleeve to limit expansion (claims 2, 18).

u. The structural stop comprises a hook 28 and a perforation 23, such that the hook engages the perforation upon radial expansion of the sleeve to limit expansion (claims 3, 19).

v. The first longitudinal edge is slidably movable with respect to the second longitudinal edge under the force of impinging exhaust gas (figs. 1, 2) (claims 5, 21).

w. The perforation is adjacent the first longitudinal edge and the tab is adjacent the second longitudinal edge (claim 20).

x. The perforation is adjacent the first longitudinal edge and the tab is adjacent the second longitudinal edge (claim 22).

11. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the deformable diffuser of '366 to include the tabs/hooks and perforations to create a slidably engaging structural stop as taught by Yu so as to allow disengagement of the tabs/hooks and perforations to facilitate simplified replacement of the inflator while the assembly is installed in the vehicle and the side of the diffuser cannot be accessed to slide the inflator out of the sleeve.

Response to Arguments

12. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

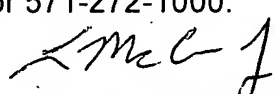
13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. McCreary, Jr. whose telephone number is 571-272-8766. The examiner can normally be reached on 0700-1700 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 3/16/07
Leonard J. McCreary, Jr.
Examiner
Art Unit 3616

 3/19/07
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600